

IN THE CLAIMS:

Please cancel Claims 8 and 20 without prejudice to or disclaimer of the subject matter contained therein.

Please amend Claims 1, 4-7, 9, 10, 12, 13, 16-19, 21, 22, and 24 as follows.

1. (Currently Amended) A speech signal processing apparatus ~~for performing speech synthesis by concatenating a plurality of selected synthesis units and modifying the synthesis units based on predetermined prosody parameters, said apparatus comprising:~~

A distortion obtaining means for obtaining a modification distortion ~~which may be generated from selection to synthesis of the synthesis units~~ between synthesis units before and after modification;

selection means for selecting synthesis units ~~to be used for speech synthesis;~~ based on the modification distortion obtained by said distortion obtaining means; and

speech synthesis means for performing speech synthesis based on the synthesis units selected by said selection means.

2. (Original) An apparatus according to Claim 1, wherein said selection means selects a plurality of synthesis units based on a phoneme series including a plurality of phonemes.

3. (Original) An apparatus according to Claim 1, wherein said distortion obtaining means obtains a distortion which may be generated in each of a plurality of synthesis

units corresponding to one phoneme, and wherein said selection means selects one synthesis unit from among the plurality of synthesis units corresponding to the one phoneme.

4. (Currently Amended) An apparatus according to Claim 1, wherein said selection means selects the synthesis units ~~to be used in speech synthesis~~ so as to minimize the modification distortion.

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5. (Currently Amended) An apparatus according to Claim 1, wherein said distortion obtaining means obtains ~~the distortion based on a concatenation~~ distortion generated by concatenating a synthesis unit to another synthesis unit ~~and a modification distortion generated by modifying the synthesis unit.~~

6. (Currently Amended) An apparatus according to Claim 1, wherein said distortion obtaining means uses a value obtained by adding the modification distortion between the synthesis units before and after modification and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit ~~and a modification distortion generated by modifying the synthesis unit as the distortion.~~

7. (Currently Amended) An apparatus according to ~~Claim 3~~ Claim 5, wherein said distortion obtaining means calculates ~~the distortion as~~ a weighted sum of the ~~concatenation~~ modification distortion between the synthesis units before and after modification and the

concatenation distortion generated by concatenating a synthesis unit to another synthesis unit ~~the~~
~~modification distortion.~~

8. (Cancelled)

9. (Currently Amended) An apparatus according to ~~Claim 5~~ Claim 1, wherein
said distortion obtaining means calculates the modification distortion using a cepstrum distance.

10. (Currently Amended) An apparatus according to ~~Claim 5~~ Claim 1,
wherein said distortion obtaining means includes a table storing ~~modification~~ distortions, and
determines the modification distortion by referring to the table.

11. (Original) An apparatus according to Claim 5, wherein said distortion
obtaining means includes a table storing concatenation distortions, and determines the
concatenation distortion by referring to the table.

12. (Currently Amended) An apparatus according to Claim 1, further
comprising:
input means for inputting text data;
language analysis means for performing language analysis of the text data; and
prosody-parameter generation means for generating ~~the~~ predetermined prosody
parameters based on a result of analysis of said language analysis means.

wherein said distortion obtaining means obtains the modification distortion between the synthesis units before and after modification based on the predetermined prosody parameters generated by said prosody-parameter generation means.

13. (Currently Amended) A speech signal processing method comprising:
a distortion obtaining step of obtaining a modification distortion between
~~generated by concatenating a plurality of selected~~ synthesis units before and after ~~modifying the~~
~~synthesis units based on predetermined prosody parameters~~ modification;
a selection step of selecting synthesis units ~~to be used for speech synthesis~~;
based on the modification distortion obtained in said distortion obtaining step; and
a speech synthesis step of performing speech synthesis based on the synthesis
units selected in said selection step.

14. (Original) A method according to Claim 13, wherein in said selection step, a plurality of synthesis units are selected based on a phoneme series including a plurality of phonemes.

15. (Original) A method according to Claim 13, wherein in said distortion obtaining step, a distortion which may be generated in each of a plurality of synthesis units corresponding to one phoneme is obtained, and wherein in said selection step, one synthesis unit is selected from among the plurality of synthesis units corresponding to the one phoneme.

16. (Currently Amended) A method according to Claim 13, wherein in said selection step, the synthesis units ~~to be used in speech synthesis~~ are selected so as to minimize the modification distortion.

17. (Currently Amended) A method according to Claim 13, wherein in said distortion obtaining step, ~~means obtains the distortion based on a concatenation~~ a distortion is obtained by generating ~~generated~~ by concatenating a synthesis unit to another synthesis unit ~~and a modification distortion generated by modifying the synthesis unit.~~

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18. (Currently Amended) A method according to Claim 13, wherein in said distortion obtaining step, a value obtained by adding the modification distortion between the synthesis units before and after modification and a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit ~~and a modification distortion generated by modifying the synthesis unit is used as the distortion.~~

19. (Currently Amended) A method according to ~~Claim 17~~ Claim 13, wherein in said distortion obtaining step, ~~the distortion is calculated as a weighted sum~~ is calculated of the ~~concatenation~~ modification distortion between the synthesis units before and after modification and ~~the modification distortion~~ a concatenation distortion generated by concatenating a synthesis unit to another synthesis unit.

20. (Cancelled)

21. (Currently Amended) A method according to ~~Claim 17~~ Claim 13, wherein in said distortion obtaining step, the modification distortion is calculated using a cepstrum distance.

22. (Currently Amended) A method according to ~~Claim 17~~ Claim 13, wherein in said distortion obtaining step, a table storing ~~modification~~ distortions is provided, and the modification distortion is determined by referring to the table.

23. (Original) A method according to Claim 17, wherein in said distortion obtaining step, a table storing concatenation distortions is provided, and the concatenation distortion is determined by referring to the table.

24. (Currently Amended) A method according to Claim 13, further comprising:

an input step of inputting text data;

a language analysis step of performing language analysis of the text data; and

a prosody-parameter generation step of generating ~~the~~ predetermined prosody parameters based on a result of analysis in said language analysis step,

wherein in said distortion obtaining step, a modification distortion is obtained between the synthesis units before and after modification based on the predetermined prosody parameters generated in said prosody-parameter generation step.

25. (Original) A storage medium, capable of being read by a computer,
storing a program for executing a method according to any one of Claims 13 through 24.

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